

ABSTRACT

An apparatus for and method of extending the dynamic range of a RF communications receiver. The invention provides a mechanism for controlling the gain of both the LNA and down conversion mixer in the front end portion of an RF receiver. Both
5 the LNA and the mixer are adapted to have both low and high gain modes of operation. The control mechanism typically comprises a two bit gain control that places both the LNA and mixer in one of four operating gain mode states. The selection of the most appropriate operating gain mode state, is preferably determined in accordance with various metrics such as the received levels of the desired signal, levels of interference signals, bit error rate and
10 receiver RSSI.